

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1. (Currently Amended) A device ~~Device~~ for controlling ~~and/or or~~ monitoring a yarn processing system, comprising:

a textile machine ~~like a weaving machine or a knitting machine~~ having an electronic main control, ~~and~~

at least one yarn feeding device having an electronic feeding device control and being associated with the textile machine, and

a serial communication field bus system ~~(FBS)~~ within which as communication participants at least the feeding device control and the main control ~~(MCU)~~ communicate via at least one field bus,

wherein at least one event line which is separated from the field bus system is provided between the textile machine and the at least ~~the one~~ yarn feeding device for a real time transmission of time critical ~~and/or or~~ time specific digital and anonymous event signals for executing ~~and/or or~~ confirming different time critical ~~and/or or~~ time specific events in the yarn processing system, and that the respective event signal is defined prior to the transmission for at least one communication participant via the field bus system by at least one event specific characteristic.

2. (Currently Amended) The device ~~Device~~ as in claim 1, wherein the at least one event line comprises an individual point-to-point-event line ~~is~~ provided between the textile machine and the at least ~~each one~~ yarn feeding device, preferably said individual point-to-point-event line containing an event signal driver ~~per event line~~.

3. (Currently Amended) The device ~~Device~~ as in claim 1, wherein the at least one event line comprises a single and common multi-drop event line ~~is provided~~ between the textile machine and the at least the one yarn feeding devices device, ~~preferably said multi-drop event line~~ containing at least one common event signal driver.

4. (Currently Amended) The device ~~Device~~ as in claim 1, wherein at least one accessory device is associated to the at least one yarn feeding device which accessory device ~~can be~~ is controlled and/or or monitored by the feeding device control, and wherein the accessory device is connected to the event line directly or via the feeding device control.

5. (Currently Amended) The device ~~Device~~ as in claim 1, wherein at least one accessory device is associated to the at least one yarn feeding device which accessory device has an electronic ~~accessory device control and/or~~ accessory device monitor, and wherein the accessory device is connected to the event line ~~and, in some cases, to the field bus system,~~ either directly or via the feeding device control.

6. (Currently Amended) The device ~~Device~~ as in claim 1, wherein at least one accessory device is associated ~~to with~~ the textile machine and ~~that the~~ accessory device ~~can be~~ is controlled or monitored by the main control or by an individual electronic accessory device control, and wherein the accessory device is directly connected to the event line.

7. (Currently Amended) The device ~~Device~~ as in claim 1, wherein the event signal ~~is~~ comprises at least one signal pulse.

8. (Currently Amended) The device ~~Device~~ as in claim 1, wherein the communication participants are connected to addressed nodes of the field bus system, or are provided with

respective addresses within the field bus system,
~~respectively.~~

9. (Currently Amended) The device ~~Device~~ as in claim 1, wherein the event specific characteristic of the event signal is defined in each communication direction in the field bus system for each transmission direction in the event line.

10. (Currently Amended) The device ~~Device~~ as in claim 1, wherein the event specific characteristic comprises one of:
the type of the event represented by the respective event signal and/or signal,

the address ~~and/or node address of at least one of a sender and/or receiver of the~~ respective event signal, and/or
the node address of a sender of the respective event signal,

the address of at least one receiver of the respective event signal,

the node address of at least one receiver of the respective event signal,

the expected point in time of ~~the event and/or an event,~~
a time window for the ~~at least one an event, and/or~~
the number of expected events at one or ~~at several more~~
nodes, ~~and/or~~

a delay time duration which has to be considered between
~~the transmission of the~~ respective event signal and the
execution ~~and/or confirmation of the event, and/or~~

a delay time duration which has to be considered between
transmission of the respective event signal and confirmation
of the event,

the consequence of the event respective signal which is
transmitted from or to a predefined ~~address and/or address,~~

the consequence of the event respective signal which is
transmitted at a predefined point in time and/or time, and

the consequence of the event respective signal which is
transmitted within a predefined time window, and the like.

11. (Currently Amended) Device as in claim 1, wherein the respective event signal is representing ~~at least one of the following a signal types~~ type comprising one of:

an activating ~~or deactivating~~ trig signal for a yarn feeding device stopping accessory device,

an deactivating trig signal for a yarn feeding device stopping accessory device,

a yarn winding count signal of a yarn feeding device count accessory device,

a trig signal for activating ~~or deactivating~~ a yarn stretching accessory device arranged at ~~the~~ an exit side of the at least one yarn feeding device,

a trig signal for deactivating a yarn stretching accessory device arranged at an exit side of the at least one yarn feeding device,

a trig signal for activating, ~~deactivating or adjusting~~ a controllable yarn braking accessory device arranged within ~~the~~ a yarn path,

a trig signal for deactivating a controllable yarn braking accessory device arranged within a yarn path,

a trig signal for adjusting a controllable yarn braking accessory device arranged within a yarn path,

an okay signal ~~and/or fault signal~~ of a weft yarn monitoring or yarn breakage detector accessory device arranged within ~~the~~ a yarn path,

a fault signal of a weft yarn monitoring or yarn breakage detector accessory device arranged within a yarn path,

an event confirmation signal,

an event inhibition signal,

an okay status signal ~~and/or a fault status signal~~ of at least one communication participant, and ~~the like~~

a fault status signal of at least one communication participant.

12. (Currently Amended) A method Method for controlling ~~and/or or~~ monitoring a yarn processing system comprising:

a textile machine ~~like a weaving machine or a knitting machine~~ having an electronic main control, and

at least one yarn feeding device having an electronic feeding device control and being associated with the textile machine, and

a serial communication field bus system including at least one field bus in which field bus system at least the feeding device control and the main control ~~are communicating~~ communicate as participants,

~~whereby according to the method~~ comprising:

~~the connected communication participants communicate~~ communicating within the field bus system by messages such that time critical ~~and/or or~~ time specific, prioritised events are executed ~~and/or or~~ confirmed as functions of the yarn processing by at least one selected communication participant,

~~wherein the execution and/or confirmation of the~~ executing or confirming execution of the respective event ~~is made by~~ at least one anonymous real time event signal transmitted via at least one event line which is separated from the field bus system, and

~~wherein defining by software~~ at least one event specific characteristic which informs at least one communication participant about the meaning of the expected event signal ~~is defined for this the~~ at least one selected communication participant in advance to of the transmission of the event signal in the event line via the field bus system ~~and by software by~~ at least one message representing the characteristic.

13. (Currently Amended) The method Method as in claim 12, wherein at least one event specific characteristic is defined by an aspect comprising one of: an expected point in ~~time or by time,~~ a time ~~window or by window,~~ a time duration, and ~~in some cases, by at least one a~~ sender address.

14. (Currently Amended) A device ~~Device~~ for communicating in and for controlling a yarn processing system including:

a textile machine, ~~e.g. a weaving machine, and~~
one or ~~several associated more~~ yarn feeding devices
associated with the textile machine, and e.g. weft yarn
~~feeding devices,~~

~~the textile machine and/or the feeding devices having~~
associated at least one accessory assembly associated with the
textile machine or the one or more yarn feeding devices, the
accessory assembly comprising one of: like e.g. control for
uncontrolled yarn stretchers or stretchers, brakes, and yarn
sensors, etc.,

wherein the textile machine comprising comprises a main
control, and

wherein each of the one or more yarn feeding device
comprising devices comprises an individual feeding device
control which, in some cases, also is provided for the
accessory assemblies of the feeding device,

~~further including~~wherein the device comprises a serial
communication field bus system which is provided with one or
several more parallel bus lines, via which field bus system at
least the respective feeding device controls of the yarn
feeding devices are connected to the main control of the
textile machine,

~~wherein separate from the field bus system one or several~~
more specific event synchronous lines are provided, separate
from the field bus system, as functions for bidirectional
digital signal transmissions between the textile machine and
the yarn feeding devices, and vice versa for messages of time
critical or time specific characters, so-called event
synchronous signals,

wherein the yarn processing system contains whereby the
event synchronous signals and , e.g. trig signals for
initiating or executing certain functions, predefined feedback

pulses, ~~e.g.~~ for confirming the initiated or executed functions, or for indicating events ~~occurring in the components, which are contained in the yarn processing system, etc.~~

15. (Currently Amended) The device ~~Device~~ as in claim 14, wherein the function of the ~~at least one~~ or more event specific synchronous line ~~lines~~ in relation to ~~time, i.e. the~~ intended function at a predefined point in time, or within a predefined time period, is defined ~~(time window) can be defined or configured, preferably on a continuous time basis, by means of~~ based upon information which is sent within the field bus system interconnecting the textile machine, ~~and the one or more yarn feeding devices, and in some cases their~~ the at least one accessory assemblies, whereby assembly, wherein the intended function of the ~~at least one~~ or more event specific synchronous line ~~may be lines~~ comprises one of: information about the type of the next following event signal which will be sent in the ~~at least one~~ or more specific event ~~line or lines, information about the type of the event signal~~ which occurs within the event line, ~~and/or and~~ address information representing from which node or nodes of the ~~yarn feeding device~~ one or the more yarn feeding devices the next following event is to be expected, and address information representing from which node or nodes ~~or of the~~ at least one accessory assembly ~~or the accessory assemblies~~ the next following event is to be expected.

16. (New) The device as in claim 14, wherein an individual feeding device control is further provided for the accessory assemblies of the feeding device.

17. (New) The device as in claim 5, wherein the accessory device is further connected to the field bus system, either directly or via the feeding device control.

18. (New) The device as in claim 1, wherein at least one accessory device is associated with the at least one yarn feeding device which accessory device has an electronic accessory device control, and wherein the accessory device is connected to the event line.

19. (New) The device as in claim 18, wherein the accessory device is further connected to the field bus system, either directly or via the feeding device control.